

Abstract Data Interpolation in Library OPAC: from the Perspective of Information Dissemination

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ABSTRAK

OPAC perpustakaan pada dasarnya telah menyediakan metadata lengkap dengan berbagai isian data yang dapat digunakan untuk memuat informasi koleksi lebih detail. Tulisan ini akan menganalisis potensi dilakukannya penambahan data koleksi khususnya abstraksi koleksi dari sudut pandang kebutuhan informasi dan diseminasi informasi. Metode yang digunakan yaitu analisis tinjauan literatur dengan merujuk beberapa sumber informasi seperti artikel ilmiah dari jurnal elektronik ataupun sumber online lain serta buku yang relevan dengan kajian ini. Data diperoleh dengan mengobservasi OPAC perpustakaan berbasis online dari beberapa institusi pendidikan. Hasil kajian menunjukkan bahwa pola metadata yang dibangun perpustakaan masih terbatas pada deskripsi singkat koleksi sehingga manfaat informasi belum tentu didapatkan pengguna. Penambahan data abstrak pada OPAC jika dilihat dari sudut pandang diseminasi informasi sangat diperlukan karena pengguna membutuhkan informasi yang lebih detail. Perpustakaan tentu dapat melakukan penambahan data abstrak dengan memilih salah satu dari metode dalam proses membuat rangkuman yaitu abstraksi dan ekstraksi.

Kata kunci: OPAC perpustakaan; automasi perpustakaan

ABSTRACT

OPAC libraries have provided complete metadata with various data fields that can be used to contain more detailed collection information. This paper will analyze the potential for additional data collection, especially collection abstractions from the point of view of information needs and information dissemination. The study used a literature review analysis by referring to several sources of information such as scientific articles from electronic journals or other online sources as well as books relevant to this study. The data was obtained by observing the OPAC of online-based libraries from several educational institutions. The results of the study showed that the metadata pattern built by the library is still limited to a brief description of the collection so that the benefits of the information are not necessarily obtained by the user. The addition of abstract data to the OPAC, from the point of view of information dissemination, is very necessary because the users need more detailed information. Libraries can add abstract data by choosing one of the methods in the summary process, namely abstraction and extraction.

Keywords: Library OPAC; library automation



1. INTRODUCTION

Online Public Access Catalog (OPAC) has an important role in the information retrieval process, especially in helping users who certainly have difficulty finding the library collection they are looking for on the shelves. OPAC transformed along with technological developments where at the beginning of the emergence of this system, it still operated offline so library managers had to provide many computer devices in a special area called OPAC services. Nowadays, OPAC is starting to be developed online so that users can access this system through devices such as mobile phones, computers, and laptops connected to the internet. A few examples of libraries that implemented OPAC as the ITS Surabaya library: library.its.ac.id/opac, a public high school library: digilib.sman2banjar.sch.id.

The number of library automation systems today has made it easier for various types of libraries to implement such technology, including its OPAC. Senayan Library Management System (SLiMS) and INLISLite are two examples of library management systems that can be freely downloaded and used. Some libraries in Indonesia that use both systems can be seen through their library OPACs. They are developed by some libraries either in public or private educational institutions. However, some libraries have developed their automation systems such as the Pelita Harapan University Library (UPH). Libraries that develop their own systems have full authority in designing and developing the systems they use. In the context of selecting the library system to be used, the chief librarian has an important role in deciding, but the most important thing is how the system used can meet the needs of both the librarian and the library users.

Generally, library automation systems with a variety of features have connected every activity in the library. This includes the library OPAC which is part of the system. OPAC in the library automation system, such as SLiMS and INLISLite has complete metadata containing the description of a collection. Metadata has an important role to construct data as information that can be displayed on the OPAC page. Therefore, librarians must be careful when creating metadata for each library collection. The metadata created by the library will be appeared or be accessed by library users, and that will help them find what they need.

The detailed information provided in the library OPAC is a description of the library collection like title, author, year of publication, publisher, city of publication, classification number, availability of books, number of copies, etc. However, OPAC metadata in most libraries often only contains a short description, it does not help the users much. With short information presented, and library visit restrictions during the pandemic, the library should concern that detailed information is a necessity. In such a situation, where a user does not have free space, they need more complete information than just a short description in the library OPAC.

In terms of Information dissemination, the library OPAC should be presented because the end-users need access to find out more, and get what they wanted. OPAC development policies must provide convenience. [Chatterjee and Samanta \(2021\)](#) explained that library policies must be in favor of users, especially in accessing any content within the library. Library users who have an understanding and awareness of the importance of information will continue to try to access information, even if it is in remote places.

Creating bibliographic data collections in a library automation system is indeed not an easy task, especially with the addition of abstracts to the library OPAC. This work will take quite a bit of time carried by the librarian, particularly in the processing unit. In the context of dissemination, abstracts are important to display so that information can be more fully presented to library users. However, as mentioned earlier, many library OPACs only provide

brief information without an abstract The purpose of this study is to analyze the addition of abstract data, especially from the perspective of information dissemination.

2. PREVIOUS FINDINGS

Online library catalogs are indeed currently a topic that is still often discussed, although the development of libraries, especially the technology used, has entered the advanced stage of development, especially regarding repositories, digital libraries, and others. [Azzahra and Ramadhani \(2020\)](#) researched OPAC development. Their study the development of a web-based library OPAC by designing a system independently using the UML (Unified Modeling Language) approach. The study took place at STAI Auliaurasyiddin Tembilahan Riau. This research resulted in a library automation system product developed using the RAD (Rapid Application Development), a software development process model that emphasizes a relatively shorter development cycle. The study also showed the approval of system users with a value range of 61%-80% of respondents agreeing to the system product made.

Another study was conducted by [Mitari](#) in 2019. One of the results of this study was about user satisfaction with the library OPAC at Muhammadiyah Riau University. Of the 98 respondents, 51.1% of them said they were satisfied with the services provided, especially in terms of content and display. The content is an important component because the purpose of developing an automation system is to disseminate information on the collections owned by the library. The metadata design in the OPAC carried out by the librarian is a determinant of whether the content that appears in the OPAC can attract the interest of users to the collections in the library or if there is a reverse tendency.

[Martin and Nilawati \(2019\)](#) researched library OPAC and examined recall and precision in one of the open-source applications, namely SLiMS. The study took place in the National Commission of Human Rights (*Komnas HAM*) Library by using quantitative methods. The results of this study indicated that the average recall value of the OPAC is 99.8%, while the precision has an average value of 99.6%. This study analyzed the performance of the SLiMS automation system when displaying information through its search feature. System users certainly want the system to perform optimally, especially when they need fast and precise information. Another study was conducted by [Wulandari, Fauziyah, and Hertanti \(2020\)](#). This studied the optimization of library management using the INLISLite in the East Java regional library. This research used a descriptive method with a qualitative approach to show that the implementation of the INLISLite has been going well following the activities carried out by the library. The INLISLite developed by the regional library in East Java Province has met the indicators for the implementation of E-Government, namely effective, efficient, transparent, accountable, and empowerment.

Studies on information dissemination have also been carried out by several people, such as that conducted by [Fadhli, Insan, and Igriza \(2018\)](#), who studied social media-based information dissemination in Indonesian cultural digital libraries. Another research on the same subject was also conducted by [Kuswati \(2021\)](#) who studied the activities of digitizing ancient manuscripts as part of the information dissemination process. The study was conducted at the Radya Pustaka Surakarta museum, South Sulawesi Province BPAD, and the Sastra Lestari Foundation where the results of this study indicate that the South Sulawesi BPAD and the Lestari Sastra Foundation have carried out the process of digitizing and disseminating information as well as carrying out the transliteration process on their ancient manuscripts so that they make it easier for researchers and the general public to understand the ancient manuscripts kept by the two institutions.

3. METHODS

This study provides a conceptual analysis that explores the problem of adding abstracts to library OPAC so that the information presented is more complete and helpful. The current study used the literature review. This method is chosen to provide critical arguments to phenomena or problems that are developing in the discussion of adding library OPAC abstract data and information dissemination. As described by [Snyder \(2019\)](#) and [Nazir \(2013\)](#), it is useful for providing an overview of the problems contained in a particular study, and knowledge about certain topics by reviewing books, notes, sources of literature, and reports that are related to the study. [Xiao and Watson \(2017\)](#) explain that literature reviews are grouped into four categories based on their objectives, namely to describe, test, extend, and critique.

Observations were also made by visiting library OPACs sites from several institutions. The data generated from observations are very helpful as supporting material in constructing the scientific narrative used in answering the problems contained in this study. This study also tries to show a fact about the condition of the information presented in the library OPAC. Therefore it is very important to use observation because this activity requires researchers to see the actual conditions in the field. [Anggito and Setiawan \(2018\)](#) described observation as an activity that involves the power of the five senses such as hearing, sight, taste, touch, and taste based on facts produced by an empirical event.

4. RESULTS AND FINDING ANALYSIS

OPAC library is one part of the existing modules in the library automation system whose function is a tool to retrieve information in the library. However, this function is not static, because it continues to evolve according to the times. For example, in the current pandemic, its functions can change according to the current situation. One of the objectives of presenting library OPAC is to improve the performance of library services as stated by [Hartono \(2020\)](#) that library OPAC must be designed according to the users' needs.

Realizing the importance of library OPAC makes every library continue to develop its function. One way is to provide an abstract in the library OPAC's display. In fact, there are still incomplete OPAC libraries, without abstracts. So that it is the task of librarians that how every bibliography listing made by the library can also display an abstract. By presenting complete or detailed information, especially abstracts, it can be ascertained that it is very helpful for library users. Some examples of bibliographic displays in the library OPAC that do not display abstracts are presented below. Figure 1 is one example that still only shows a simple description of the library collection.

Another observation is seen in Figure 2. The detailed information presented at the STIESIA Surabaya Library OPAC is quite simple where there are few items such as language and ISBN are not filled in so the collection description information becomes very limited.



Figure 1 Details of library OPAC search results
 Source: <http://opac.alhikmahlibrary.com/index.php?go=detil>

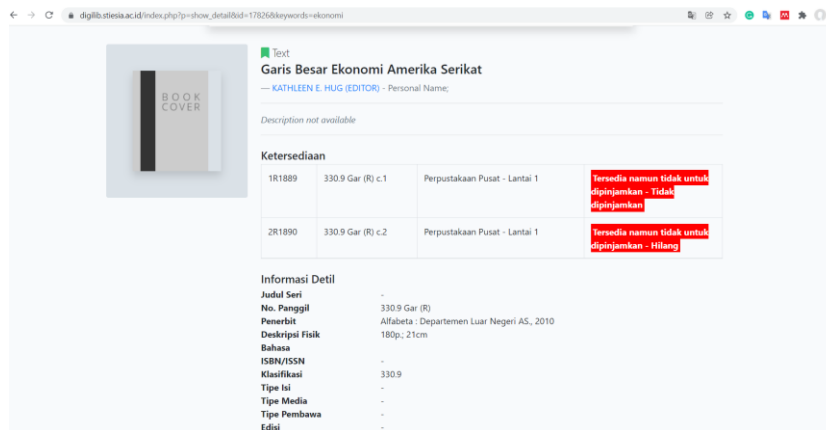


Figure 2. Display of STIESIA Surabaya Library OPAC search result
 Source: https://digilib.stiesia.ac.id/index.php?p=show_detail&id=17826&keywords=garis+besar+ekonomi

An observation in the Unair Surabaya Library showed that the library used INLISlite where the library OPAC as seen in figure 3. The display is still limited to the collection of description data. The results of the searches carried out on the STIESIA and Unair OPAC libraries did produce information that was still simple, but this observation was carried out by searching using random keywords and the selection of search results was also carried out randomly so that there was a possibility that the metadata in some other searches had more complete results.

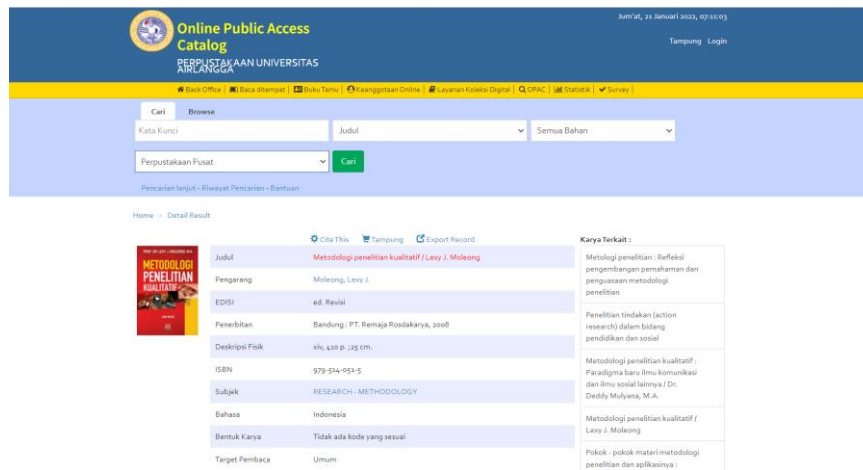


Figure 3. Display of Unair Library OPAC search result
Source: <http://ailis.lib.unair.ac.id/opac/detail-opac?id=70174>

From the observations made, it shows that the presentation of information in the search results is still very limited, in other words, it is incomplete. This does help, but not much. Because, as expected by library users, how the provided information must help them find the information they wanted.

The development of the library OPAC's display must be considered by every library, especially by interpolating new entries that represent the library collection. One of the data that represents the contents of a collection is a summary or often known as an abstract. The library automation systems used to develop OPAC are usually equipped with the abstract field in the bibliography module. Library software such as SLiMS and INLISlite have already accommodated abstracts in the bibliography module. Librarians as professionals in libraries certainly understand the importance of abstracts for the collection. The existence of abstracts in OPAC search results certainly provides a lot of information.

5. DISCUSSION

Data Interpolation of Information Dissemination Perspective

Information dissemination is a method of disseminating information used by librarians to provide appropriate facilities and services according to user needs. [Idiedo and Posigha \(2020\)](#) explained information dissemination as a method used by librarians to provide information to users, dissemination is also used to create user awareness that libraries provide information resources and services that they can access and use easily.

Most libraries have the right media to disseminate information, but the media will be meaningless if the quality of the provided information is poor. [Fan et.al \(2021\)](#) in their research on the dissemination of information stated that media, content, and information formats have an important influence on the spreading of information. OPAC is the best media in a library for disseminating information.

The greater the number of library collections owned and presented in the library's OPAC, the more interesting people are to find out. It is even more interesting if each collection is displayed with quality information. The information format in library OPAC is in the form of metadata where the available content displays some data related to library collections. So, libraries need librarians who have good metadata skills. As stated by [Shonhe \(2017\)](#) that several information dissemination techniques must be mastered by librarians so that they can develop

their skills including OPACs, personalized collections, SMS notifications, QR codes, online reference services, social networks, websites, and mailing lists.

The addition of data or interpolation of new entries becomes very important in the library information dissemination scheme. The innovation of developing library OPAC content should be carried out regularly without having to wait for direct demands from users regarding the quality of the information displayed in the library OPAC. Users need something new from the OPAC to improve their experience of the services provided by the library, therefore the addition of data as a dissemination effort is indeed needed to provide quality information.

Librarians should make more use of the abstract features available in the information system to create information related to the contents of each library collection. More complete information about library collections will attract users. Therefore librarians must innovate on information media developed by libraries to provide alternative routes for users who need information. [Ladan, Haruna, and Madu \(2020\)](#) explained that libraries have an important role in providing and disseminating information during a pandemic by providing online services that can be used to access materials, assisting researchers by providing sources of information about the Covid-19, an online reference service, providing a collection of e-books and e-journals and other efforts that can contribute to the library user community. Information dissemination by some libraries is used as a service because indeed one of the functions of a library is to provide selective information services that are made based on knowledge and user needs. [Adeniran \(2018\)](#) stated that selective dissemination of information can be described as an online information search service that provides access to indexing, abstraction, and collection databases (full-text) and is available for research purposes.

The additional abstracts in the library OPAC has been implemented by the National Library of Indonesia (PERPUSNAS) in some of the search results in its OPAC. It shows detailed information, including the abstract (see Figure 4). This certainly can be adopted by other libraries. Although the addition of abstract data to the National Library of Indonesia's OPAC has not been assigned on all existing collections, the efforts made by displaying abstract data are the right steps so that the public can obtain more complete information.

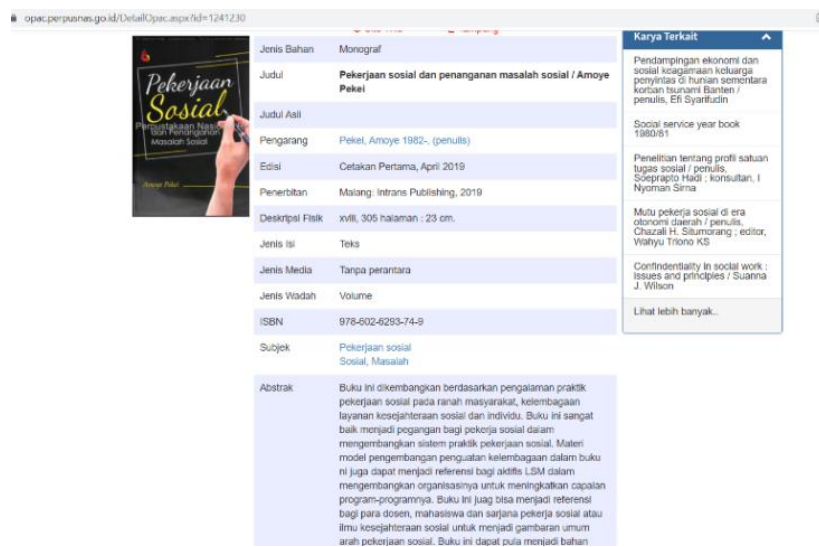


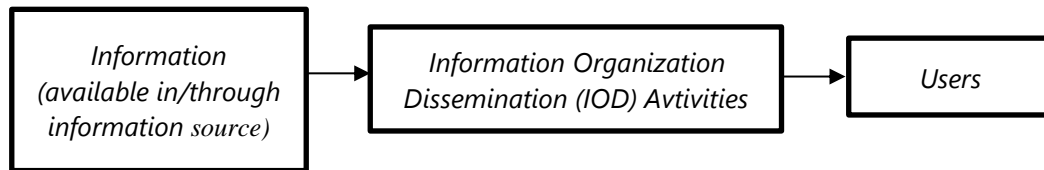
Figure 4. Abstract display in the National Library of Indonesia's OPAC search result
 Source: <https://opac.perpusnas.go.id/DetailOpac.aspx?id=1241230>

Interpolation of abstract data in the library's OPAC should not be a difficult thing to do. It is considered that librarians have skills in making abstracts or summaries for each library collection. A librarian just simply needs to use the right technique or method to decide what kind of information should have an abstract. If an item is considered very difficult to have an abstract, a librarian then can simply provide a note containing brief information that reflects the contents of the collection such as displaying a table of contents for the abstract item. [Dohare, Karnick, and Gupta \(2017\)](#) explain that two methods can be used to make a summary, namely extractive and abstractive. The extractive is a method of making summaries by taking words or sentences directly from the text, while abstraction is a method that focuses on capturing the meaning of the text and providing a representation of a certain meaning in the text.

Making summaries in book collections certainly cannot be equated with summarizing scientific articles, besides those scientific articles are often equipped with abstracts so that librarians simply copy the abstracts. Making summaries in a collection of books requires extra effort because the librarian must read in detail the contents of the collection. Therefore, the librarian can choose the easiest method to apply in the process of making summaries such as using extractive methods. It will not waste the time during the process of adding abstract data to the library OPAC. Another alternative that can be tried by librarians is by copying the synopsis of the book, the problem is that not all collections have a synopsis that reflects the content but rather explains the author's profile. Librarians need to be careful in understanding the synopsis of the book, therefore the synopsis must be read so that copying the synopsis is the right step that the librarian can take.

Librarians must understand the potential for changes in the pattern of needs shown by online OPAC users. The pattern of change in question can be in the form of the emergence of user expectations for information obtained through OPAC. Nowadays, library users certainly expect the library can provide more complete information when they get information through online portals. Librarians need to examine the pattern of user needs by providing access to actual users and potential users to take advantage of library OPAC. The users' experience can certainly be useful for librarians in determining system policies. [Singh and Emmerhainz \(2019\)](#) explained that librarians need to invite users who are not affiliated with the institution (potential users) to use library services to listen to their experiences. Appreciation of the actual and potential user experience needs to be carried out by library managers, especially in terms of developing library automation systems managed by libraries. The library OPAC should not contain static information, but more detailed information, including the synopsis of the book if possible.

Data interpolation in the OPAC is not only related to adding data to summarize the contents of library collections, but the abstract data item feature in the automation system needs to be utilized properly because it will greatly help users obtain the information of the item. Dissemination of information is not just providing but what is provided. Therefore, the addition of data from a dissemination point of view is very important. Data interpolation is carried out when the search results are not following user expectations. Dissemination of information of course requires a process of organizing information that encourages the smooth process of dissemination in the library. The importance of information organization in the stage of disseminating library information is reinforced by the statement of [Chatterjee \(2017\)](#) that explained that if information organization has a vital role in making information available to library users, this vital role is illustrated through a diagram as follows;



Source: Chatterjee, A. (2017)

The diagram shows that if the library has a lot of information available through information sources, then there are users who are ready to take advantage of the information provided by the library according to their needs. The librarian is standing between the source of information and the users and serves as an information organizer where information passes through the stages of selection, classification, and manipulation of information according to user needs until it is ready to be distributed to users through media information sources managed by the library.

6. CONCLUSION

Dissemination of information carried out by libraries is not only providing information to users, but dissemination requires planning, organizing information, and the right strategy so that information meets users' needs. The addition of data is part of the dissemination process which is carried out after an evaluation of the information provided by the library. Current users need quality information. Therefore, additional data should be done on library information media such as library OPAC. Data such as abstracts need to appear considering that the information represents the contents of the library collection. Librarians play an important role in determining the policy of adding data due to many library services are now being user-oriented. Information dissemination in the library OPAC must emphasize a complete description. Libraries can add abstract data by choosing one of the methods in the summary process, namely abstraction, and extraction.

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